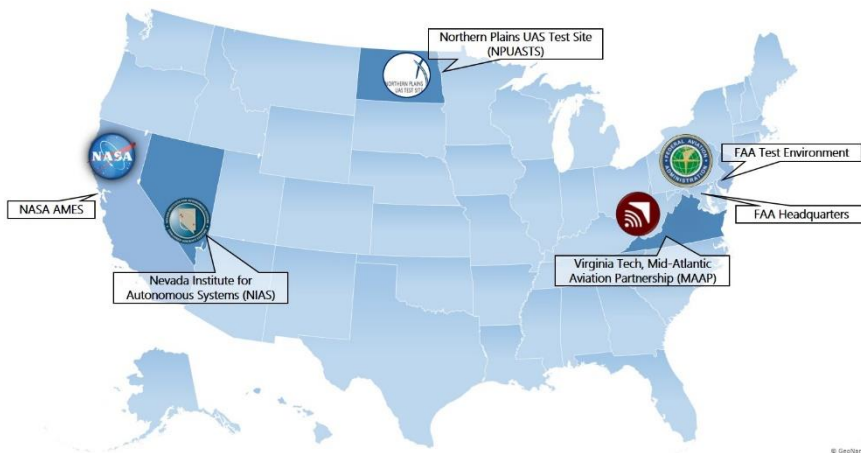




PROGRAM OVERVIEW

The Unmanned Aircraft System (UAS) Traffic Management (UTM) Pilot Program (UPP) was established in April 2017 per the [Federal Aviation Administration \(FAA\) Extension, Safety and Security Act of 2016](#), Sec. 2208 as an important component for identifying the initial set of industry and FAA capabilities required to support UTM operations. Analysis of test and demonstration results will provide an understanding of the level of investment required for each stakeholder's implementation. On January 14, 2019, U.S. Department of Transportation Secretary, Elaine L. Chao, announced the FAA's selection of three FAA UAS Test Sites (listed below) to partner with the agency in the UPP.

As the FAA, the National Aeronautics and Space Administration (NASA), and their new industry partners move forward, their primary goal for the UPP is to develop, demonstrate, and provide enterprise services, using a cloud service infrastructure, which will support the implementation of initial UTM operations. These enterprise services will support the sharing of information that promotes cooperative separation and situational awareness. UTM services to be demonstrated in the UPP include sharing of flight intent between operators, the ability for a UAS Service Supplier (USS) to generate a UAS Volume Reservation (UVR)—a capability providing authorized USSs the ability to issue notifications to UAS Operators regarding air or ground activities relevant to their safe operation—and share it with stakeholders (e.g., other USSs and FIMS).



UPP AWARDEES

UPP contracts have been awarded to the following FAA UAS Test Sites:

- [Nevada Institute for Autonomous Systems \(NIAS\)](#)
- [Northern Plains UAS Test Site \(NPUASTS\)](#)
- [Virginia Tech, Mid Atlantic Aviation Partnership \(MAAP\)](#)

NEVADA INSTITUTE FOR AUTONOMOUS SYSTEMS (NIAS)

"...The NIAS has the unique mission to plan and execute UAS flights in collaboration with Nevada teammates, collect FAA flight performance data, and develop enhanced National Airspace safety control measures..."

For UPP, Nevada will focus on advanced airspace, drone, and sensor technology for safe drone airspace operations in an urban environment.

For more information on NIAS, please visit: <https://nias-uas.com/>



NORTHERN PLAINS UAS TEST SITE (NPUASTS)

"Collaborate with FAA and industry partners to develop equipment, systems, rules, and procedures to safely integrate unmanned aircraft into the NAS without negatively impacting existing general or commercial aviation."

For UPP, NPUASTS testing will focus on understanding the flow of information from the user to the UTM system and the FAA, as well as on the evaluation of both visual line of sight (VLOS) and beyond visual line of sight (BVLOS) operations.

For more information on NPUASTS, please visit: <http://www.npuasts.com/>



MID ATLANTIC AVIATION PARTNERSHIP (MAAP)

"...focus on foundational technologies and high-value operations that will enable the efficient use of unmanned aircraft for a broad range of applications and lay the groundwork for meaningful UAS integration."

For UPP, MAAP will focus on leveraging existing systems and capabilities that have been well proven in previous UTM research efforts and operations, and on giving priority to building systems that can be implemented in the near term and sustained long term.

For more information on MAAP, please visit: <https://maap.ictas.vt.edu/>



UPP SIGNIFICANT EVENTS MILESTONES



January 2019
UPP Awarded



February 2019
UPP Test Environment Opens
and Development Begins



May 2019
UPP Flight Tests and
Demo Begin



August 2019
UPP Demo Complete

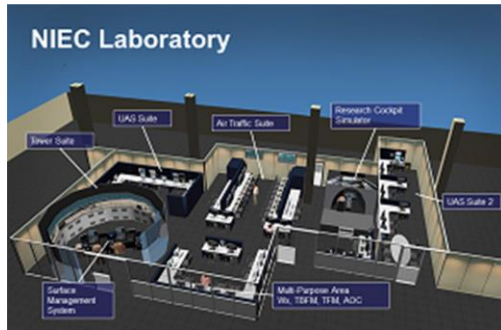


September 2019
UPP Final Report
Complete

UPP TEST ENVIRONMENT

The FAA established a lab environment at the [NextGen Integration and Evaluation Capability \(NIEC\)](#) with the following responsibilities:

- ✦ Provide prototype development, testing, and integration in support of the UPP demonstration and evaluation.
- ✦ Conduct functional testing, and integration testing to ensure readiness of the lab environment to support the execution of UPP user demonstrations and operational evaluations.
- ✦ Manage all source code, software executables, and documentation for UPP.



For more information about the NIEC, please visit:
https://www.faa.gov/about/office_org/headquarters_offices/ang/offices/tc/about/campus/faa_host/labs/csi_team/NIEC/

OTHER HELPFUL LINKS

Secretary Elaine L. Chao Announcement
https://www.faa.gov/uas/programs_partnerships/DOT_initiative_s/
FAA UAS Test Sites
https://www.faa.gov/uas/programs_partnerships/test_sites/
FAA UTM
https://www.faa.gov/uas/research_development/traffic_management/
NASA UTM
<https://utm.arc.nasa.gov/index.shtml>

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FREQUENTLY ASKED QUESTIONS

What is the purpose of the UTM Pilot Program?

The purpose of the UTM Pilot Program (UPP) is to demonstrate the integration of a prototype enterprise service into the FAA framework to support initial UTM operations. This enterprise service will be used for sharing of intent and situational awareness information between the FAA and UTM operators.

How does the UPP complement the IPP?

The UPP is a Congressional directive to the FAA and NASA to establish a Research Transition Team and partner with industry to help advance the safe integration of small UAS into the national airspace. The UAS Integration Pilot Program (IPP) is a [Presidential directive for the Secretary of Transportation](#) and FAA to create a partnership framework for private sector and local/state/tribal governments to help direct broader national policy.

The IPP's purpose is to advance the UAS industry by informing regulations that permit more complex, demand-driven UAS operations and push the boundaries of UAS use by expanding what is routinely authorized under the sUAS rule. In support of the future sUAS operations, the UPP's purpose is to pilot a UTM ecosystem built on an architectural infrastructure and data services that allow UAS Service Suppliers, operators, and other Government organizations to communicate and share information that will ultimately inform the FAA's future implementation of UTM.

How is the UPP different from UTM?

UTM is a traffic management ecosystem for uncontrolled operations that is separate but complementary to the FAA's Air Traffic Management (ATM) system. UPP is a project that will demonstrate UTM capabilities currently in the research and development phase and will serve as the basis for initial deployment of UTM capabilities.

How will the UPP support the implementation of UTM?

The UPP will demonstrate transfer of NASA's UTM research technologies to the FAA. The results from the UPP will provide a proof of concept for UTM capabilities currently in research and development and will serve as the basis for initial deployment of UTM capabilities.

What happens after FAA has completed its UPP demonstration?

The UPP results are expected to provide an understanding of the level of investment required for implementation of the UTM ecosystem. Upon completion, the FAA will evaluate the results and determine the appropriate next steps, including possible follow-up demonstrations.